

History of Cadilac Paint

In 1937, Marion L. Weaver purchased approximately 2.9 acres of land in a predominantly rural agricultural area on Eliot St. in Ashland Ma.¹ A small wooden building was constructed near the northwest property line. By 1938 the first one story concrete block building was constructed and joined to the wooden building which became a loading and storage area. These two combined buildings are known as the Laboratory building. It was used by both Colonial Lacquer & Chemical Co. and Cadilac Paint Co. as a laboratory to mix and test new formulas of paint and paint products. This building is located in the northwest corner of the property, set back approximately 8 ft. from Eliot street. On November 26, 1938, the property was subdivided into two parcels identified in the Registry of Deeds South Registry District of Middlesex County as lot B1 and B2. By 1940 a concrete block one story office building was added to the property as was a wooden storage garage (see Appendix A, Site Photos). Between 1940 and 1954, four additional buildings were constructed; one metal storage shed; a Quonset style metal shed; a pumphouse that was situated between these two sheds; and a 40' x 70' Manufacturing building. This building is northeast of the two metal storage sheds and the pumphouse.

In 1956, a mortgage was granted to Colonial Lacquer and Chemical Company for the amount of \$30,000 by the Framingham Trust Company. On or about this time, a seventh structure, a second Manufacturing building approximately 40' x 60', was built on the site just west of the original Manufacturing building. No variance allowing this building was discovered. This may be due to the confusion in parts of the record as to the exact date the town of Ashland adopted its original Zoning By-Laws (i.e. 1954 or 1957). As near as can be determined in the short period of time we have had to do research, the date of adoption was 1957. By this time, Colonial Lacquer had been in the business of making specialized paints for more than 20 years in what was essentially a rural area. The facility employed 2 to 3 people as well as it's working owner, Marion Weaver. Mr. Weaver operated the facility until 1965, when William B. Chace of Boston purchased the facility and took over all its' contracts.²

The original by-laws adopted by Ashland zoned the land occupied by Colonial Lacquer and all other land surrounding its property as Residential/Agricultural. In the late 1950's to early 1960's, approximately 50 single family homes were constructed in the Adams Road Sheffield Drive Subdivision, changing this area from essentially agricultural to predominantly residential. Thus began a conflicting relationship between a growing pre-existing non-conforming use of property that was located in the middle of a growing residential area.

In 1963, 1964, and 1967, three variances permitting increases in manufacturing and storage capacities were granted. The first variance (1963) granted permission to construct a 100' x 100' Manufacturing building. This variance was granted due to a perceived hardship on the owner, and almost doubled the non-conforming use of the property. Although the variance was granted due to substantial hardship claimed by the petitioner (which the granting of this variance would alleviate) this building was never constructed during the remaining 15 years that Mr. Weaver owned and operated Colonial Lacquer.

The second variance (1964) granted permission for the placement of solvent storage in underground tanks (placed into service by Chace). The variance was granted primarily to decrease the risk to the area residents in the event of a fire at the site. There is evidence that Colonial used this variance to increase their solvent storage capacity, thus expanding, without town approval, the non-conforming use of the property. At this time, several large above ground storage tanks were in place to the South (rear) of the Manufacturing buildings.

The third variance (1967) was granted to permit the enclosure of a space, used for storage purposes, that existed between the two Manufacturing buildings and the shipping platform. In its Feb. 15, 1967 ruling, the ZBA expressed its' concern " that the subsequent owners and management may feel that because the middle building exists, it might be used for manufacture, and it (the ZBA) hereby puts subsequent owners on notice that permission is granted to use (this) building, so long as it is used for storage purposes only... this enclosed storage area and the enclosed shipping and receiving platform are never to be used for an expansion of manufacturing operations.²

Thus, by the end of 1967, the original 75' x 125' concrete platform that initially housed the first manufacturing building (main building) and served as a loading dock and storage platform was, for all reasons visible to the residents, prospective buyers, and the town; as well as the employees who operated the facility, transformed into one large 75' x 120' building.

In 1977, this new combined Manufacturing building was destroyed in a fire.

In 1978, the buildings and land of Colonial Lacquer were purchased by Edward T. Johnston owner of Cadillac Paint and Varnish Co. of Allston.

In September 1978, a permit for the construction of a 70' x 120' replacement Main Manufacturing building was approved, and construction was begun. Through rebuilding, the new owner of the now Cadillac Paint and Varnish Co. of Ashland, substantially expanded the non-conforming use of the property without being granted a variance by the ZBA to specifically do so. In addition, the replacement building was 10-15 feet higher than the original, becoming 1 1/2 story building, further increasing the storage capacity and

the non-conforming use without express permission through a variance of the zoning laws.²

On May 9, 1985, a representative of the DEQE began an inspection of the site in order to determine compliance with the Massachusetts Hazardous Waste Regulations, 310 CMR 30.00. A Notice of Violation was sent to the owner of Cadillac on July 2, 1985, stating the violations that were observed and the steps necessary to comply with the law.³ The owners initially failed to comply with the DEQE directives, but after meetings with DEQE representatives in Boston in the summer of 1985, the two responsible parties, Chace and Johnston, agreed to a plan to comply with state laws.

In September 1985, Waterlac of Nashua New Hampshire began negotiations to purchase all the assets of Cadillac Paint and Varnish Co. Owner Edward T. Johnston prepared to purchase all stock owned by other shareholders and to clean the property to a point where it could be sold. From October 1985 to May 1986, Waterlac transferred raw materials and pigments from storage sites and containers on the Cadillac property to its' Danvers Plant.⁴

During 1986, Waterlac continued to purchase raw materials and solvents while Johnston continued in his efforts to clean up the Cadillac property. Bewick Associates were retained to give expert counsel on the cleanup efforts. Environmental Resource Engineering (ERE) was hired to remove underground storage tanks (USTs) and clean them for transport off the site. Meanwhile, test drilling was begun by Guild Drilling Co. to bore test wells in order to monitor possible ground water contamination. On July 11, 1986, Bewick Assoc. submitted a 21E Environmental Audit Report to Cadillac Paint. The report noted evidence of contamination and recommended that the USTs be tested and removed.⁵

Between October 1986 and February 1987, a total of fourteen Usts in the tank farm were remediated by Environmental Restoration Engineering (ERE) and Clean Harbors Inc. The removal action involved excavating the 14 tanks, pumping and removing the liquids, and off site transport and disposal. The total tank farm capacity was estimated to be 39,000 gallons. Also, in February, Waterlac Industries hired Solvent Recovery Systems (SRS) to remove 9000 gallons of "dirty" solvent generated by Cadillac and illegally stored on the site.

In June 1987, The Ashland Fire Chief observed a contractor working on the Colonial site with a backhoe. Roughly 60 drums, that appeared to have been pulled from a nearby hole in the southwestern area of the property, and were leaking, were discovered by the Fire Chief. The unlicensed operator was told to cease operations, and the site owner was ordered to get a licensed contractor to perform the work. The Fire Chief learned that additional drums had been removed the previous week. This area became known as the "drum burial area".

On March 1, 1987, ERE is removed from the site cleanup operations amid allegations of improper licensing and removal techniques. Ashland's Fire Chief and the Board of Health asked the DEQE to be directly involved in the cleanup efforts stating that they had lost faith in and patience with Mr. Johnston, ERE, and Bewick Associates.

Between May 12, 1987 and January 27, 1987, Weston Geophysical surveyed the area of the alleged dump site and discovered a continuous metal object reading that proved to represent approximately 77 buried drums. Clean Harbors was hired and asked to submit an estimate for the removal of the drums. The removal was begun, halted, and continued amid live TV coverage on June 19, 1987. From June 20 to June 26 Clean Harbors completed the containment response excavation, removing all known drums and separating flammable liquids and solids from the metal drums which were then crushed. By June 30 containment of the site was completed. By January all seismic data was submitted, samples from test wells and borings as well as the test pits dug around the "dump" area were also submitted to the DEQE.

Cambridge Analytical Associates (CAA) conducted a soil gas survey, which identified three plumes of volatile organics: (1) in the former tank farm area (highest reported levels), (2) extending from the wooded area near the former rubbish pit, and (3) a minor plume extending from the wooded area down the grassy area to the paved driveway. It was the opinion of CAA that that all of the plumes reflected surface contamination, although there is no analytical data for the soil associated with this potential source area on file.⁶

In June 1987, approximately 80, 55-gallon buried drums were excavated from beneath the southwest corner of the site. Monitoring wells were subsequently installed and analyses indicated that the ground water beneath the site was contaminated with a variety of aromatic compounds, ketones and ethyl acetate.

Concurrently with the site investigations in July 1987, the DEQE issued a Notice of Responsibility to Colonial Lacquer & Chemical Co.

In December 1987, Clean Harbors, under subcontract to J.B. Plunkett, performed an exploratory test pitting program in both the drum burial area and the tank farm area. A total of 14 test pits were excavated, and soil and groundwater samples were obtained for analysis. The results of the test pitting headspace volatile analysis indicated that volatile organic compound contamination existed in the top three feet of the soil near the former tank farm and drum disposal areas. The results were similar to data from 1986: the contaminants noted in the highest concentrations were toluene (76,000 ppb), xylenes (75,000ppb), and ethyl benzene (17,000 ppb). The highest concentrations of contaminants were consistently found in well OW-3.⁶

On January 26, 1988, the residents of the town of Ashland and the abutters of the Cadillac Paint site submitted a petition to the Zoning Board of Appeals asking that the Board review the file concerning the date that operations at Cadillac Paint were halted.⁷ This petition was submitted to the Board of Appeals bringing attention to the conditions as stated in the town Zoning By-Laws: "A non-conforming use which has been abandoned or discontinued for a period of two years, shall not be re-established, and any future use of the premises shall conform with this By Law"^{7, 8} Thus, in 1988, the variance which permitted Colonial Lacquer and Chemical Co. and Cadillac Paint and Varnish Co. to occupy the property on 409 Eliot street for a non-conforming commercial usage was recognized as having expired in 1987. Ten years later, in 1997, the grandfathering of commercial/industrial use for this property also expired. At this time, the lots indicated on the Zoning maps of the town of Ashland as lot B1 at 409 Eliot street and B2 at 415 Eliot street are zoned either for Single Family Residential, or for use as Open Space.

In 1988, five additional groundwater monitoring wells were installed (OW-2D, OW-4D, OW-5D, OW-6D, and OW-7). Well OW-7 was screened in the overburden only; the rest were bedrock wells. Results of groundwater sampling on July 1, 1988 identified the following volatile organic compounds (VOCs): toluene, xylenes (total), ethyl benzene, 1,1,1-TCA, PCE, acetone, vinyl chloride, TCE, 1,1-DCA, 1,2-DCA, t-1,2-DCE, 2-hexanone, methyl isobutyl ketone (MIBK), benzene, and 1,2-dichloroethene. Both overburden and bedrock wells were contaminated with wells OW-2D and OW-6D exhibiting the highest bedrock contaminant concentrations.⁶

The continued presence of compounds in the ground water prompted additional subsurface investigation to identify potential secondary on-site contaminant sources. The subsurface investigation identified remnant product piping associated with the former USTs, a 1,000-gallon UST, and a buried rubbish pit. Based on these findings, the Massachusetts Department of Environmental Protection (DEP) Northeast Regional Office (NERO) issued Notice of Responsible Actions (NORAs) for the site dated January 1990, and July 1990. The requisite site actions outlined in the NORAs included the excavation of remnant product piping, excavation of contaminated soils surrounding the piping, removal of the 1,000-gallon UST, and excavation of the buried rubbish pit. Additional activities included ground water sampling of on-site monitoring wells and private wells at surrounding area residences. The requisite site actions were performed as Short Term Measures from June 1990 through July 1991. Approximately 800 cubic yards of soils contaminated with aromatic compounds, ketones, and ethyl acetate were excavated along with the product piping. Nutrients were applied to the soils which were then encapsulated with vapor extraction and recharge piping inside a Permalon liner. A vacuum was applied to the encapsulated system and volatized contaminants were removed via the extraction pipe. The contaminated vapor stream was directed to an on-site portable thermal oxidizer. The contaminants were incinerated using this technology for a period of approximately 30 days. The contaminated soils were passively

boivented for an additional 18 month period following the vapor extraction phase. Soil samples were collected from the pile and analyzed at the end of 18 months. The results did not identify hazardous substance list volatile organic compounds above laboratory detection limits.

The 1,000-gallon underground storage tank was excavated at the site and found to be in good condition (no visible holes in the steel plate were observed). Headspace screening of soils collected from the sidewalls and floor of the tank excavation did not indicate the presence of volatile organic compounds.

The rubbish pit was partially excavated on September 6 through 7, 1990. The contents of the rubbish pit included empty crushed 55-gallon drums, one and five-gallon pails, paint and varnish residues and construction and demolition debris. The excavated rubbish was segregated according to type and stockpiled at the site. Scrap metals (excluding pails and drums) were steam cleaned and transported to a DEP approved scrap metal acceptance facility. A series of test pits were excavated to determine the full extent of the rubbish pit.

Concurrent with soil remediation, ground water sampling and analyses were performed by Handex of New England. The wells sampled were OW-1 and OW-3. Groundwater contamination was detected in both wells, and included toluene (up to 16,000 ppb), ethyl benzene (3510 ppb), xylenes (15,000 ppb), and lower concentrations of 1,1,1-TCA, PCE, and 1,2-DCA (which is a biotransformation product of chlorinated solvents). Contaminant concentrations were lower than those reported in 1987 (where toluene had been 76,000 ppb, ethyl benzene was 17,000 ppb, and xylene was 75,000 ppb). The analytical results identified decreased contaminant concentrations in the majority of on-site monitoring wells after completion of the source remediation activities.

In August 1992, a thin layer (<1 foot) of "floating product" solvent was reported as being consistently present in OW-3, despite recovery efforts in an adjacent recovery well.⁹ A further inspection showed that the scavenger pump in the recovery well had become clogged. The recovery well and scavenger pump were dismantled and removed. No further attempts at product recovery from well OW-3 were found in the public record.

On May 19, 1993, elevated levels of 1,1-dichloroethane (up to 319 ug/L), toluene (up to 16,9000 ug/L), ethyl benzene (up to 3510 ug/L) and xylenes (up to 15,100 ug/L) were detected in ground water analysis of monitoring wells on the site.

In September 1993, MA DEP contracted CYN Environmental under the MADEP Site Support Services Contract to backfill the contents of treated soil from the tank farm excavation into open excavations at the site, and to excavate the remains of the rubbish pit. The contaminated rubbish pit soil was stockpiled

on 6-mil polyethylene sheeting. Soils with headspace readings >100ppm were segregated for off site disposal.

On August 23, 1996, 22 drums containing semi-solid resins, that were located in the Quonset hut and Tin shed, and generated as a result of the DEP removal action of the trash pit in 1993, were disposed of by Cyn Environmental Services.

During the summer of 1998, DEP Environmental Engineers conducted a series of ground water tests and soil samples were collected for analysis of metals and residual volatile organic contaminants as a response to neighbors concerns for the safety of children who may have trespassed on the site. During this inspection an above ground storage tank (AST) was discovered outside the Office Building containing approximately 60-80 gallons of petroleum products, as well as three 55 gallon drums of partially dried resins inside the Wooden storage garage.

On September 2, 1999, CYN Environmental Services removed the three drums of partially dried resins found in the Wooden storage garage and removed approximately 80 gallons of product and sludge from the AST located behind the Office building as well as excavating and removing 4.1 tons of contaminated soil immediately beneath the leaking tank. A newly discovered UST, located at the northeast corner of the Manufacturing building, was inspected. Approximately 485 gallons of petroleum product (heating oil) was removed by vacuum truck in the presence of Ashland Fire Chief William Kee. Ground water samples were taken from the remaining nine on site monitoring wells. Levels above GW-1 standards were found in only one on site well, OW-3 that has consistently shown the highest readings on the site. The elevated levels recorded were: toluene (2,300 ppb), ethyl benzene (1200 ppb), Xylenes (5480 ppb), and naphthalene (28 ppb). Other elevated levels recorded included 1,2,3,trimethylbenzene, isopropylbenzene, n-propylbenzene, and 1,3,5 trimethylbenzene, although these were all below GW-1 standards.

On September 9, 1999, NERO, BWP, Asbestos section conducted an asbestos survey of the Main Manufacturing building, the Office building and the Laboratory building. At the time of the survey no imminent hazard from asbestos was observed. ¹⁰

The following conditions were observed in the structures inspected:

- 1) *Main Manufacturing building*- no visible asbestos was observed in the structure. However, if the building was going to be demolished, the roof and under the boiler skin should be sampled;
- 2) *Office building*- there appears to be an asbestos transite ceiling and wall partition above the drop ceiling. No other obvious asbestos was observed, however, if the building was going to be demolished, the

carpeted floor area needs to be inspected and/or sampled for possible hidden vinyl asbestos tile (VAT) and related asbestos adhesive; and

- 3) *Laboratory building*- no obvious asbestos observed, however, a tin ceiling in one area of the building would need to be checked prior to demolition.¹⁰

Notes

1. Transfer Certificate of Title, No. 51806, Certificate No. 43934
2. Correspondence between Attorney at Law John W. Thompson and Ashland Zoning Board of Appeals. November 8, 1979
3. Correspondence between Richard J. Chaplin Acting Regional Environmental Engineer, Commonwealth of Massachusetts, DEQE and Edward Johnson, September 24, 1985.
4. Correspondence between Edmund Rosa, President of Waterlac Industries Inc., Danvers Massachusetts and Mr. Richard J. Chaplin Deputy Regional Environmental Engineer, The Commonwealth of Massachusetts, DEQE. September 21, 1987.
5. Chronology of events Cadillac Paint Ashland, from the public file, No. 3-0221, Commonwealth of Massachusetts, Department of Environmental Protection. April 15, 1988.
6. Site Inspection Prioritization Report, Colonial Lacquer & Chemical Company, CERCLIS No. MAD 01025402, TDD No. 9409-CSX, August 20, 1996.
7. Taken from the original petition dated January 26, 1988, thanks to S. Lanis.
8. Massachusetts General Laws (in effect 1988), Chapter 40A, Section 6, article 1533.
9. DEP Memorandum dated November 17, 1992, from Patricia Donahue, Environmental Analyst, DEP, Case No. 3-0221, p.2.
10. DEP Memorandum dated June 6, 2000, from Wes Perry, DEP, BWSC, NERO, subject: Cadillac Paint, Summary of Actions Completed by CYN Environmental, DEP Case No. 3-0221.